Bushfire Assessment Report

Proposed: Dwelling Construction

At: Stage 1 – Milperra Riverlands

Reference Number: 230317B

26th May 2023



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Contents

		Page No.
Copyright and Disclaimer		
List of	fAbbreviations	3
1.0	Introduction	4 - 5
2.0	Legislative Requirements	5
3.0	Purpose of Report	6
4.0	Scope of Report	6
5.0	Compliance Table and Notes	6 - 7
6.0	Aerial view, Approved Stage Plan & Draft DP Plan	8 - 10
7.0	Site Assessment	11 - 16
8.0	Bushfire Protection Measures	17 - 21
9.0	Recommendations	22
10.0	Conclusion	23
11.0	Annexure	24
-	List of referenced documents and attachments	
-	Attachments	

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S4.14 applications (under the Environmental Planning and Assessment Act 1979) and all infill development applications <u>may</u> be referred by Council to the NSW Rural Fire Service for review and concurrence during the DA process. S100B applications under the Rural Fires Act 1997 (subdivisions and Special Fire Protection Purpose Developments), Flame Zone determinations and Alternate Solutions <u>must</u> be referred by Council to the NSW Rural Fire Service for review and receipt of a Bushfire Safety Authority (BSA) or other such recommended conditions from the NSW Rural Fire Service before the consent can be granted.

The onus is on the applicant to cross reference this document with any conditions of consent issued by Council or any requirements supplied by the NSW Rural Fire Service following development approval. BCBHS can review and cross reference these documents however the onus is on the applicant to provide them to us and request this review – Building Code and Bushfire Hazard Solutions Pty. Ltd. is not in a position to track every DA through Council and we rely upon the applicant to undertake this role as project co-ordinator.

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Version Control				
Version Date Author Reviewed by Details				Details
1	26/05/2023	Stuart McMonnies	Andrew Muirhead	Final Report

List of Abbreviations:

APZ	Asset Protection Zone
AS3959	Australian Standard 3959 – 2018
BAL	Bushfire Attack Level
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Canterbury Bankstown Council
DA	Development Application
ELVIS	Elevation and Depth Foundation Spatial Data
EP&A Act	Environmental Planning and Assessment Act - 1979
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NASH	National Association of Steel-framed Housing
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Place
OPA	Outer Protection Area
PBP	Planning for Bush Fire Protection – 2019
ROW	Right of Way
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

1.0 Introduction

Building Code and Bushfire Hazard Solution P/L has been commissioned to provide an independent Bushfire Assessment Report to address the relevant specifications and requirements of Planning for Bush Fire Protection 2019 for the construction of a dwelling within each of the newly created allotments in Stage 1, Milperra Riverlands.

Development consent was issued by the Land and Environment Court of NSW (LEC No: 2020/267229) on 16 June 2022 for the subdivision of proposed Lot 1 (created under DA-1107/2019) into 180 residential allotments and five (5) residue lots, with bulk earthworks, construction of internal roads, drainage and associated services over three (3) construction stages, including the construction and use of a temporary sales office.

This approved subdivision is being delivered in three (3) stages, with this report addressing new dwelling construction in Stage 1 only.

The site for the original subdivision was known as 56 Prescot Parade, Milperra (Lot 10 DP 731859), with the parent site for the subject stage being Lot 1 in DP 1261511.

The subject site is located within Canterbury Bankstown Councils Local Government area and zoned 'R2 Low Density Residential' under the Bankstown Local Environmental Plan 2015 (BLEP).

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document 'Planning for Bush Fire Protection - 2019' (PBP).

PBP provides for the protection of property and life (including fire-fighters and emergency service personnel) from bushfire impact.

While it is acknowledged that the location of the subject site is not mapped as containing Category 1, 2 or 3 Vegetation or the Vegetation Buffer as Canterbury Bankstown Council's Bushfire Prone Land Map identifies the original site as partially containing the Vegetation Buffer and therefore PBP must be applied.

The subject development relates to construction of new dwellings within seventy-eight (78) residential allotments. The development is classified as infill and captured under section 4.14 of the *Environmental Planning and Assessment Act* 1979. Chapter 7 'Residential Infill Development' and Chapter 8 'Other Development' of PBP must be considered.

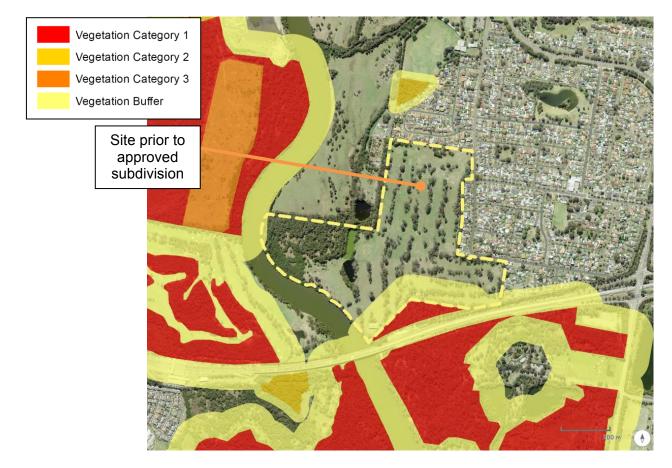


Figure 01: Extract from Canterbury Bankstown Council's Bushfire Prone Land Map

2.0 Legislative Requirements

The subject site is designated as Bushfire Prone Land (Figure 01).

In accordance with section 4.14 of the *Environmental Planning and Assessment Act* 1979 development consent cannot be granted for the carrying out of development for any purpose (other than a subdivision of land that could lawfully be used for residential or rural residential purposes or development for a special fire protection purpose) on bush fire prone land unless the consent authority:

- (a) is satisfied that the development conforms to the specifications and requirements of the version (as prescribed by the regulations) of the document entitled *Planning for Bush Fire Protection*, or
- (b) has been provided with a certificate by a person who is recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment stating that the development conforms to the relevant specifications and requirements.

This Bushfire Assessment Report has been prepared by Stuart McMonnies, Director at Building Code & Bushfire Hazard Solutions Pty Ltd who is recognised by the NSW Rural Fire Service (RFS) as qualified in bushfire risk assessment and has been accredited by the Fire Protection Association of Australia as a Level 3 BPAD qualified practitioner (BPAD9400).

3.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide the owners and Council with an independent bushfire assessment together with appropriate recommendations for both new building construction and bushfire mitigation measures considered necessary having regard to construction within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

4.0 Scope of this Report

The scope of this report is limited to providing a bushfire assessment and recommendations for the subject property. Where reference has been made to the surrounding lands, this report does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

5.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection – 2019*.

	North	East	South	West
Vegetation Structure	Managed Lands	Managed Lands	Managed Lands	Woodland*
Slope	N/A	N/A	N/A	0 – 5 degrees down
Required Asset Protection Zone	N/A	N/A	N/A	16 metres
Available Asset Protection Zone	N/A	N/A	N/A	≥32 metres
Bushfire Attack Level	BAL Low	BAL Low	BAL Low	BAL 12.5

* Expanded environmental studies for the site was undertaken by Cumberland Ecology (2021) and advice provided which supports a 'worst case' Woodland classification for part of the 'RE2 Private Recreation' zoned land to the west of the residential allotments.

Asset Protection Zones

The minimum required Asset Protection Zones were determined from Table A1.12.2 of Planning for Bush Fire Protection (PBP).

The subject development exceeds the minimum required Asset Protection Zones under PBP.

The separation from the hazard interfaces primarily consists of the perimeter road.

All proposed residential allotments and pocket parks (excluding Southern Park) will be maintained in accordance with an Asset Protection Zone.

Construction Level

The highest Bushfire Attack Level to the proposed dwellings was determined from Table A1.12.5 to be 'BAL12.5'.

The proposed dwellings are to comply with the highest Bushfire Attack Level as shown on the attached 'Bushfire Attack Level Overlay'.

New construction shall comply with AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

Compliance Summary of Bushfire Protection Measures				
Bushfire Protection Measure (s7.4 PBP)	Acceptable Performance Solution Solution		Report Section	
Asset Protection Zones			8.02	
Construction Standard			8.03	
Access	\boxtimes		8.04	
Water Supply	\boxtimes		8.05	
Gas and Electrical Supplies			8.05	

6.0 Aerial view, Approved Staged Plan & DP Plan



Figure 02: Aerial view of the subject area C/- Nearmap May 2023

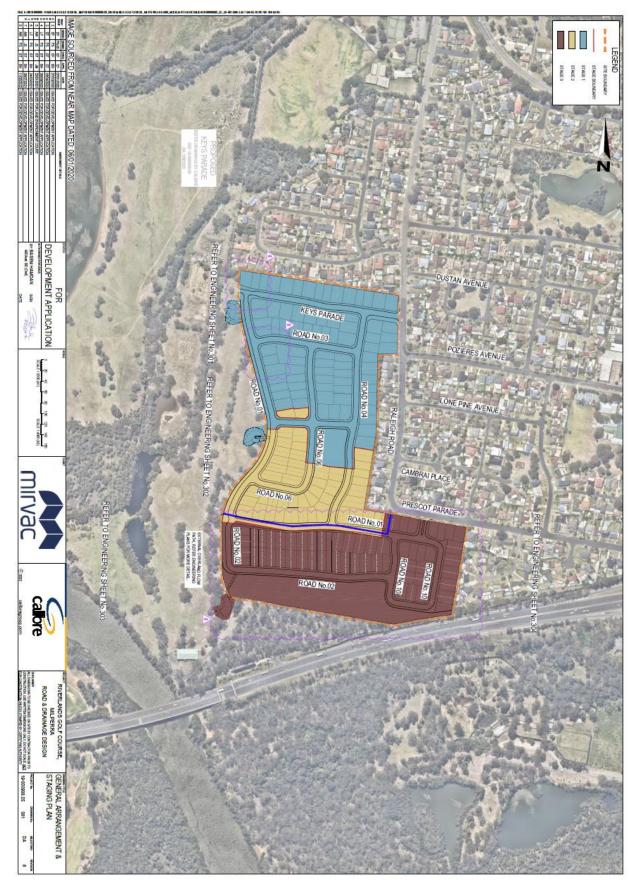


Figure 03: Extract of the approved Staged Plan

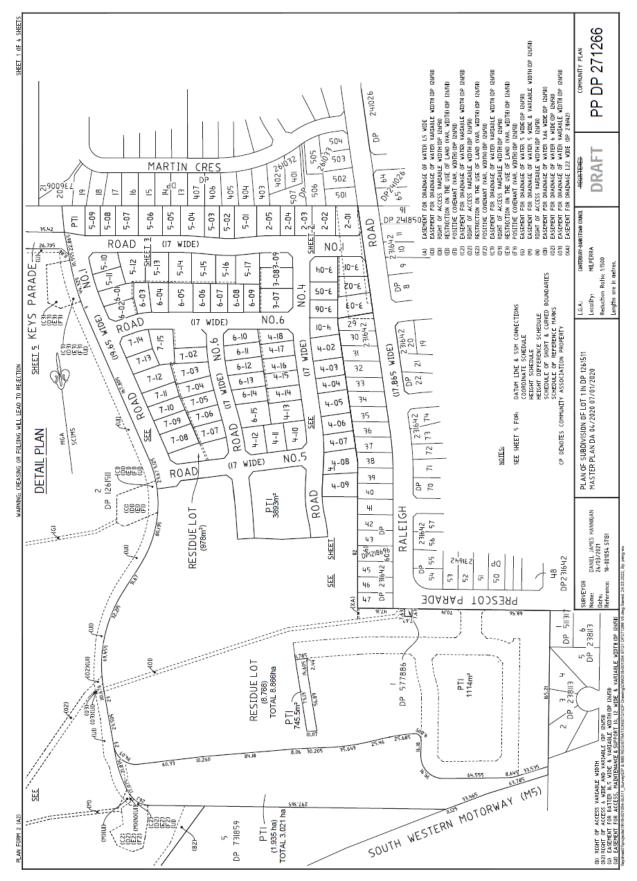


Figure 04: Extract of Draft DP Plan

7.0 Site Assessment

A representative of Building Code & Bushfire Hazard Solutions completed a site inspection of the subject site and surrounding area on 31 October 2019.

In addition, the following external data sources have been relied upon for this assessment:

- Aerial imagery of the subject area (NSW Spatial Services & Nearmap);
- 1 metre contour mapping of the subject area (Elevation and Depth Foundation Spatial Data – Geoscience Australia)
- NSW Planning Portal Spatial Viewer
- Vegetation mapping (NSW State Vegetation)
- NSW Bush Fire Prone Land (ePlanning Portal)

7.01 Location

The site for the original subdivision was known as 56 Prescot Parade, Milperra (Lot 10 DP 731859), with the parent site for the subject stage being Lot 1 in DP 1261511.

The subject site is located within Canterbury Bankstown Councils Local Government area and zoned 'R2 Low Density Residential' under the Bankstown Local Environmental Plan 2015 (BLEP).

The subject site has street frontage to Raleigh Road to the east and abuts existing residential development to the north and east, approved Stage 2 to the south and a large allotment zoned RE2: Private Recreation to the west.

The vegetation identified as being the hazard is located to the west of the residential allotments within neighbouring allotment.

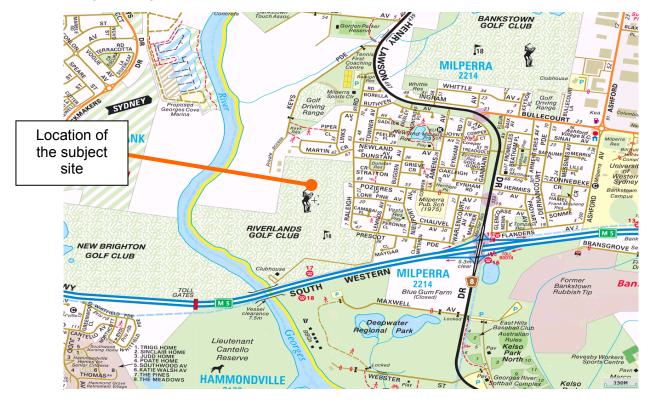


Figure 05: Extract from street-directory.com.au

Building Code & Bushfire Hazard Solutions Pty Limited



Figure 06: Land zoning of subject area (source NSW Planning Portal)

7.02 Vegetation

In accordance with Appendix 1 'Site Assessment Methodology' of PBP we have undertaken an assessment of all vegetation formations within 140 metres of the subject site for each aspect as per Keith (2004).

The subject site was formally a golf course (Riverlands Golf Course) with the previous fairways still visible. At the time of our inspection the eastern portion of the site was found to be actively grazed.

The vegetation identified as being the hazard is located to the west of the residential allotments within a neighbouring allotment.

It is acknowledged as part of a Voluntary Planning Agreement that, amongst other items, a 50 metre riparian corridor is required to be established along the Georges River. This future riparian corridor is located outside the 140 metre assessment area from the residential allotments.

The site prior to the approved subdivision has been identified by Cumberland Ecology as containing the following Plant Community Types (PCTs):

• PCT 849: Grey Box - Forest Red Gum grassy woodland on flats of the Cumberland Plain, Sydney Basin Bioregion;

- PCT 835: Forest Red Gum Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion (in two condition classes or vegetation zones);
- PCT 1232: Swamp Oak floodplain swamp forest, Sydney Basin Bioregion and South East Corner Bioregion;
- PCT 1800: Swamp Oak open forest on riverflats of the Cumberland Plain and Hunter valley; and
- PCT 1083 Red Bloodwood Scribbly Gum heathy woodland on sandstone plateaux of the Sydney Basin Bioregion.

The NSW Rural Fire service imposed the following condition as part of the subdivision which created the subject allotments:

At the issue of a subdivision certificate, and in perpetuity to ensure ongoing protection from the impact of bush fires, the existing vegetation within the proposed residential subdivision on Lot 1, including the pocket parks and proposed Southern Park must be managed in accordance with the Vegetation Management Plan for Southern Park (prepared by Cumberland Ecology, dated 5 July 2021).

All residential allotments and pocket parks across all three stages have therefore been considered to be managed land.

It is understood that the extent of vegetation embellishment onsite will be concentrated along the Georges River within the required 50 metre riparian corridor.

An expanded environmental study for the site was undertaken by Cumberland Ecology (2021) and advice provided which supports a 'worst case' Woodland classification for part of the 'RE2 Private Recreation' zoned land to the west of the residential allotments. Specifically, this advice states:

The historic land uses, primarily importation of soils for the former golf course, has significantly altered the soil profile and much of the original soil seedbank has been lost across the majority of the site, thereby severely limiting any potential for natural regeneration. Potential regeneration is further restricted by current land uses for grazing as well as presence of fungal soil pathogens. Due to the loss of the original seedbank as well as presence of fungal soil pathogens, onsite communities are considered unlikely to naturally regenerate, even with cessation of current grazing practises.

Although some of the mapped communities within the Riverlands site are technically classified as 'Forest' type communities, some sections of the onsite occurrences of these communities have densities/formations that are more akin to 'Grassy and Semi-arid Woodland' communities (referred to as 'Woodland' communities) due to the historic clearing, soil modification and current cattle grazing activities.

The areas outside of the proposed development boundary specifically assessed as meeting the requirements to be classed as 'Woodland' for bushfire purposes - i.e vegetation is dominated by an open to sparse layer of eucalypts with the crowns rarely touching, typically 15-35m high, diverse ground cover of grasses and herbs, shrubs are sparsely distributed, usually on flat or undulating ground – are shown in **Figure 1** (hatched areas).

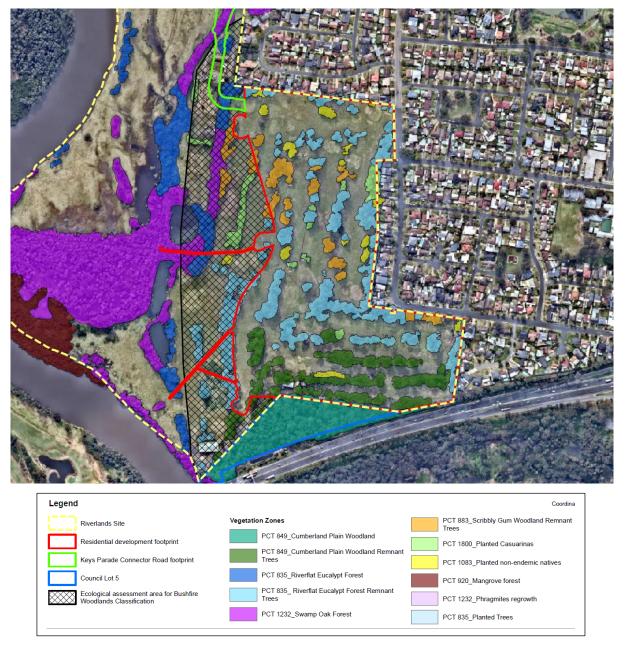


Figure 07: Extract of Figure 1 from Cumberland Ecology (2021)

For the purpose of assessment the vegetation posing a hazard to the west was determined to be Grassy Woodland, consistent with the subdivision application.

7.03 Slope and Topography

The slope of the land under the classified vegetation has a direct influence on the forward rate of spread, fire intensity and radiant heat exposure. The effective slope is considered to be the slope under the classified vegetation which will most significantly influence bushfire behaviour toward the development site.

In accordance with A1.4 'Determine slope' of PBP the slope assessment is to be derived from the most detailed contour data available.

As shown in Figure 08 the effective slope to the west was determined to be 0 - 5 degrees down.



Figure 08: Extract from ELVIS - Geoscience Australia - 1m contours

7.04 Fire Weather

All development which attracts an Asset Protection Zone and Bushfire Attack Level under PBP requires the identification of the relevant Forest Fire Danger Index (FFDI). The FFDI required to be used for development assessment purposes is based on the local government boundaries, being Canterbury Bankstown Council in this instance.

In accordance with the NSW Rural Fire Service publication 'NSW Local Government Areas FDI' (2017) Canterbury Bankstown Council forms part of the Greater Sydney Region Fire Weather District and attracts an FFDI of 100.

8.0 Bushfire Protection Measures

8.01 Planning for Bush Fire Protection - 2019

Planning for Bush Fire Protection – 2019 (PBP) is applicable to development located on land determined as being 'bushfire prone' in accordance with the local Bushfire Prone Land Map.

Bushfire prone land are defined as those areas;

- containing or within 100m of Category 1 Vegetation; or
- containing or within 30m of Category 2 or 3 Vegetation.

Canterbury Bankstown Council's Bushfire Prone Land Map identifies the site prior to the approved subdivision as partially containing the Vegetation Buffer therefore PBP must apply in this instance.

The application of Planning for Bush Fire Protection requires satisfactory demonstration of the aim and objectives and the following bushfire protection measures (BPMs):

- Asset Protection Zones
- Building construction, siting & design
- Access arrangements
- Water supply & utilities
- Landscaping

As the proposal relates to the construction of new dwellings within seventy-eight (78) residential allotments the proposal must comply with the bushfire protection measures detailed within Chapter 7 'Residential Infill Development' of PBP.

8.02 Asset Protection Zones

An Asset Protection Zone (APZ) is an area between the development (in this instance the building footprint) and the identified bushfire hazards where the fuels are maintained to a minimum to prevent the spread of fire between a hazard and an asset.

The width of the APZ is determined by the vegetation structure of the identified hazard, Forest Fire Danger Index, effective slope and the type of development (residential development or Special Fire Protection Purpose).

The minimum required Asset Protection Zones were determined from Table A1.12.2 of Planning for Bush Fire Protection (PBP).

The subject development exceeds the minimum required Asset Protection Zones under PBP.

To supplement the APZs to the west an easement (variable width) has been proposed along the eastern boundary of proposed Lot 2 in DA-1107/2019.

This easement is to facilitate the nominated area being managed in accordance with an APZ and subsequently can be utilised in the available separation distance to determine the relevant Bushfire Attack Level to dwellings. The extent of the proposed easement is shown on Figure 09 overleaf.

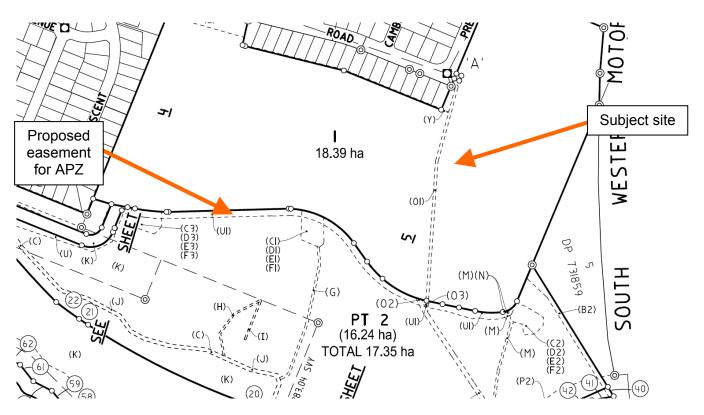


Figure 09: Extract from the Plan of Subdivision for DA-1107/2019 showing location of proposed easements

The separation from the hazard interface primarily consists of the perimeter road.

All grounds within the subject stage not built upon are to be maintained in accordance with an Inner Protection Area (IPA) as detailed in the NSW Rural Fire Service's document 'Standards for Asset Protection Zones'.

8.03 Building construction, siting & design

Australian Standard 3959 – 2018 'Construction of buildings in bushfire-prone areas' (AS3959) specifies construction standards for buildings within various Bushfire Attack Levels as determined by Planning for Bush Fire Protection – 2019.

AS3959 provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ.

Bushfire Attack Level	Maximum radiant heat impact (kW/m ²)	Level of construction under AS3959-2018
Low		No special construction requirements
12.5	≤12.5	BAL - 12.5
19	12.6 to 19.0	BAL - 19
29	19.1 to 29.0	BAL - 29
40	29.1 to 40.0	BAL - 40
Flame Zone	>40.0	BAL FZ No deemed to satisfy provisions

Table 01: Correlation between bushfire impact and AS3959

The highest Bushfire Attack Level to the proposed dwellings was determined from Table A1.12.5 to be 'BAL12.5'.

The proposed dwellings are to comply with the highest Bushfire Attack Level as shown on the attached 'Bushfire Attack Level Overlay'.

New construction shall comply with AS3959 – 2018 and the additional construction requirements detailed in section 7.5 of PBP.

8.04 Property Access

The subject site has street frontage to Raleigh Road to the east.

The approved road design includes the provision of perimeter roads, through roads and connections to Prescot Parade, Raleigh Road and Keys Parade / Henry Lawson Drive.

In accordance with the subdivision consent the new internal roads must comply with the general requirements of Table 5.3b of PBP.

The most distant external point of all building envelopes will be located within 70 metres of the approved two-way internal roads.

Fire services will have free vehicle access around the subject site via the approved public roads. Attending fire services can access the hazards via the new roads for hazard reduction or fire suppression activities.

Access for fire services and opportunities for occupant evacuation are considered adequate for this property.

8.05 Water Supply & Utilities

Hydrants are available throughout Raleigh Road, Prescot Parade and surrounding streets for the replenishment of fire service vehicles.

In accordance with the subdivision consent the new water and utility services must comply with Table 5.3b of PBP.

The development includes the installation of hydrants along the approved public roads. The sizing, spacing and pressures of the proposed hydrants must be in accordance with AS2419.1.

8.06 Emergency management arrangements

Evacuation is possible by utilising existing road infrastructure.

It is encouraged that the occupants complete a Bush Fire Survival Plan. The template for this plan is available at https://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan.

8.08 Aim & Objectives of PBP

The following table details the aim and objectives of *Planning for Bush Fire Protection* 2019 and the proposals ability to comply.

Aim / Objective	Comment
The aim of PBP is to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.	With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.
(i) afford buildings and their occupants protection from exposure to a bush fire;	The proposed dwellings will be constructed to the relevant Bushfire Attack Level and in conjunction with the available APZ will protect occupants from exposures to a bushfire.
(ii) provide for a defendable space to be located around buildings;	There is a defendable space available to the identified hazard, being the approved perimeter road.
(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings;	The existing APZs in conjunction with construction measures will prevent the likely fire spread to the buildings.

Objective	Comment
(iv) ensure that appropriate operational access and egress for emergency service personnel and occupants is available;	The existing access and approved road network provides appropriate operational access and egress for emergency services.
(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and	 All grounds within the subject stage will be maintained in accordance with an Asset Protection Zone / Inner Protection Area as detailed in Appendix 4 of <i>Planning for Bush Fire Protection</i> 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'. Any new landscaping is to comply with the provisions of Table 7.4a and Appendix 4 of PBP.
(vi) ensure that utility services are adequate to meet the needs of firefighters.	Hydrants are available throughout Raleigh Road, Prescot Parade and surrounding streets for the replenishment of fire service vehicles. Hydrants will also be extended along the approved roads in accordance with AS2419 as part of the approved subdivision. The existing and approved water supply is adequate for the needs of the firefighters.

It is therefore of our opinion that the proposal can satisfactorily comply with the aim and objectives of *Planning for Bush Fire Protection* 2019.

9.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with Planning for Bush Fire Protection – 2019 and Australian Standard 3959 'Construction of buildings in bushfire-prone areas - 2018. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

N/A – already enforced under DA-4/2020 (LEC No. 2020/267229)

Construction

- 1. That any future dwelling be construction to the relevant Bushfire Attack Level (BAL) under Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018 as depicted on the attached Bushfire Attack Level Overlay (attachment 01).
- 2. That any future dwelling required to be constructed to a BAL under AS3959 2018 must also be constructed to the 'Additional Construction Requirements' detailed in section 7.5 of the pre-release of Planning for Bush Fire Protection 2019.

Landscaping

- 3. Landscaping should comply with the principles of Table 7.4a of Planning for Bush Fire Protection 2019.
- 4. Where fencing is within 6 metres of a dwelling it should be made of noncombustible materials only.

Gas (where applicable)

- 5. That any new gas services are to comply with Table 7.4a of Planning for Bush Fire Protection 2019 as follows:
 - reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
 - all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
 - connections to and from gas cylinders are metal;
 - > polymer-sheathed flexible gas supply lines are not used; and
 - > above-ground gas service pipes are metal, including and up to any outlets.

10.0 Conclusion

Properties considered to be affected by possible bushfire impact are determined from the local Bushfire Prone Land Map as prepared by Council and or the Rural Fire Service. All property development within affected areas is subject to the conditions detailed in the document 'Planning for Bush Fire Protection - 2019' (PBP).

While it is acknowledged that the location of the subject site is not mapped as containing Category 1, 2 or 3 Vegetation or the Vegetation Buffer as Canterbury Bankstown Council's Bushfire Prone Land Map identifies the original site as partially containing the Vegetation Buffer PBP must apply.

As the proposal relates to the construction of new dwellings the proposal must comply with the bushfire protection measures detailed within Chapter 7 'Residential Infill Development' and Chapter 8 'Other Development' of PBP.

The vegetation posing a bushfire hazard to the subject site was found to be located to the west within a large allotment. The vegetation posing a hazard was determined to be Grassy Woodland.

The highest Bushfire Attack Level to the proposed dwellings was determined from Table A1.12.5 to be 'BAL12.5'.

The proposed dwellings are to comply with the highest Bushfire Attack Level as shown on the attached 'Bushfire Attack Level Overlay'.

The approved water supply and access provisions are considered adequate.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

Should you have any enquiries regarding this project please contact me at our office.

Prepared by Building Code & Bushfire Hazard Solutions P/L

Stuart McMonnies Director . Manager Bushfire Section G. D. Design in Bushfire Prone Areas. Certificate IV Fire Technology FPA Australia BPAD Level 3 Accredited Practitioner BPAD Accreditation No. BPAD9400

Reviewed by Building Code & Bushfire Hazard Solutions P/L

Andrew Muirhead Bushfire Consultant Graduate Certificate in Bushfire Protection Diploma of Engineering FPA Australia BPAD Level 2 Accredited Practitioner BPAD Accreditation No. BPAD46966

BPAD

11.0 Annexure 01

List of Referenced Documents

Australian Building Codes Board (2022). *National Construction Code Volume Two - Building Code of Australia*. ABCB

ELVIS -Elevation *-Foundation Spatial Data*. Elevation.fsdf.org.au. Available at: http://elevation.fsdf.org.au/

Keith, D. (2004). "*Ocean Shores to Desert Dunes*" Department of Environment and Conservation, Sydney

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NSW Rural Fire Service (2019). *Planning for Bush Fire Protection. A Guide for Councils, Planners, Fire Authorities and Developers.*

Standards Australia (2018). AS3959 Construction of buildings in bushfire-prone areas.

Standards Australia (2014). AS/NZS 1596 The storage and handling of LP Gas

Rural Fire Service NSW (2005). Standards for Asset Protection Zones

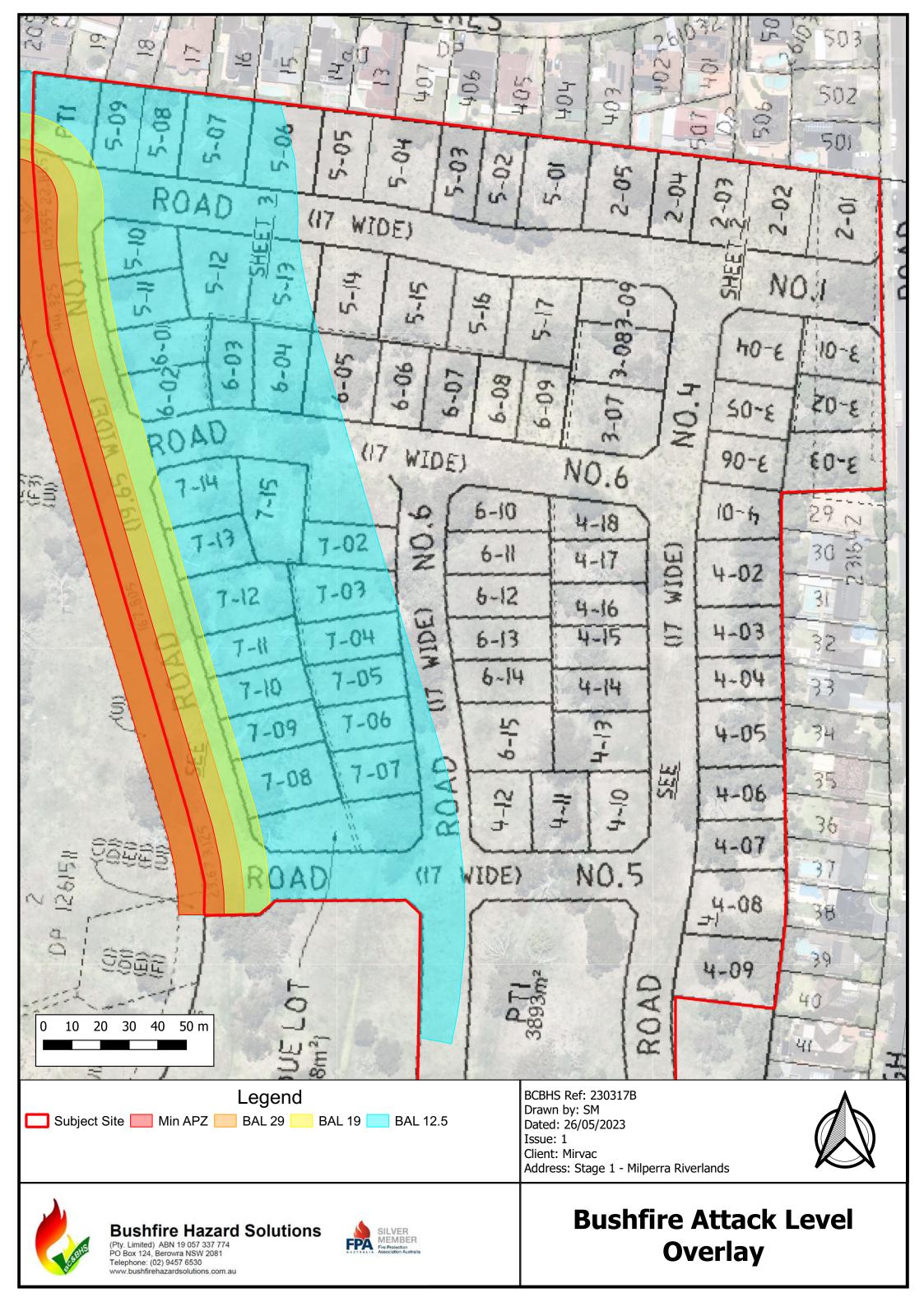
Acknowledgements to:

Geoscience Australia Nearmaps Street-directory.com.au

Attachments

Attachment 01:	Bushfire Attack Level Overlay
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Attachment 02: s4.14 Compliance Certificate





Bushfire Hazard Solutions

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BUSHFIRE RISK ASSESSMENT CERTIFICATE UNDER PART 4 DIVISION 4.3 SECTION 4.14 OF THE EP&A ACT 1979 NO 203

PROPERTY ADDRESS:	Stage 1 - Milperra Riverlands		
DESCRIPTION OF PROPOSAL:	Construction of New Dwellings		
PLAN REFERENCE: (relied upon in report preparation)	Draft DP Plan, Surveyor Daniel James Hannigan, dated 24.03.2021, ref: 18-001054 STG1		
BAL RATING:	BAL 12.5 / Low		
BUSHFIRE ASSESSMENT REPORT REFERENCE:	230317B		
REPORT DATE	26 th May 2023		
CERTIFICATION NO/ACCREDITED SCHEME	BPAD9400		

I Stuart McMonnies of Building Code and Bushfire Hazard Solutions Pty Ltd hereby certify, in accordance with Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203:*

- 1. That I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment; and
- 2. That subject to the recommendations contained in the Bushfire Risk Assessment Report the proposed development conforms specifications and requirements of the documents entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other documents as prescribed by Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203.*

I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bush Fire Protection 2019.*

Signature:	from	2	Date:	26 th May 2023
C		BPAD		